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**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE  
STATE OF CALIFORNIA**

Application of Southern California Edison  
Company (U338E) for Approval of Contracts  
Resulting From Its 2014 Energy Storage Request  
for Offers (ES RFO).

Application 15-12-003  
(Filed December 1, 2015)

Application of Pacific Gas and Electric Company  
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2014-2015 Energy Storage Solicitation and  
Related Cost Recovery. (U39E).

Application 15-12-004  
(Filed December 1, 2015)

**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) REPLY BRIEF**

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Dated: **June 8, 2016**

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**SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) REPLY BRIEF**

**I.**

**INTRODUCTION**

Pursuant to Rule 13.11 of the Rules of Practice and Procedure of the California Public Utilities Commission (“Commission”) and the schedule set forth in the Scoping Memo and Ruling of Assigned Commissioner Administrative Law Judge dated March 25, 2016, Southern California Edison Company (“SCE”) respectfully submits this reply to the opening briefs filed by parties on May 25, 2016 (“Reply”).<sup>1</sup> SCE’s Reply focuses on the Opening Briefs filed by the DA/CCA Parties concerning the Joint IOU Protocol addressing the PCIA methodology for bundled service energy storage. As detailed in SCE’s Opening Brief, and as supported by the

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<sup>1</sup> In addition to SCE, Opening Briefs were filed by the Alliance for Retail Energy Markets and Direct Access Customer Coalition (“DACC/AReM”), Marin Clean Energy, Sonoma Clean Power Authority, the City of Lancaster, and the County of Los Angeles (the “CCA Parties”), Shell Energy North America (“Shell Energy”) (collectively, the “DA/CCA Parties”); The Utility Reform Network (“TURN”); the Office of Ratepayer Advocates (“ORA”); Pacific Gas and Electric Company (“PG&E”); and San Diego Gas & Electric (“SDG&E”).

record in this proceeding, the Joint IOU Protocol is reasonable and should be adopted. It is consistent with concepts and mechanisms of the existing PCIA for non-energy storage resources and is the best available methodology to calculate the indifference adjustment needed to maintain customer indifference. Moreover it is the only implementable PCIA methodology for energy storage resources at this time. In contrast, the DA/CCA Proposal fails to maintain bundled customer indifference, and can result in significant unfair cost shifting to bundled service customers.

## II.

### **THE JOINT IOU PROTOCOL COMPLIES WITH D.14-10-045**

In recognition that energy storage is still in a nascent stage, but that this fact alone should not relieve future departing load customers of the costs associated with energy storage procured on their behalf at the time they were bundled service customers,<sup>2</sup> the Commission ordered the utilities to consider how the market services provided by energy storage would be captured in the PCIA and to propose a methodology for determining the above-market stranded costs of bundled service storage.<sup>3</sup> The DA/CCA Parties point to a solitary sentence of D.14-10-045 to claim that the Joint IOU Protocol fails to comply with the Commission's directives and should be rejected. Specifically, in D.14-10-045, the Commission noted that "the existing market benchmark is not suited to determine the above market cost for energy storage projects."<sup>4</sup> The DA/CCA Parties interpret this statement as requiring the utilities to propose a "storage-specific benchmark." The DA/CCA Parties fail to acknowledge that there is no requirement in D.14-10-045 to propose a "storage specific benchmark" as they have advocated. Further, the DA/CCA Parties ignore the context of the Commission's statement – namely, the Commission's recognition of the numerous complexities associated with cost recovery and cost allocation of new and emerging

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<sup>2</sup> D.13-10-040, p. 48.

<sup>3</sup> D.14-10-045, p. 46.

<sup>4</sup> *Id.*, p. 45.

technologies.<sup>5</sup> The DA/CCA Parties also ignore that there is no further detail in D.14-10-045 concerning the existing market price benchmark (“MPB”) – in fact, no discussion at all – of how or why the existing MPB is inadequate.

Instead, the Commission directed the IOUs to propose an appropriate PCIA methodology for determining above market stranded costs of bundled service storage “to establish appropriate context for resolving unique energy storage ratemaking issues.”<sup>6</sup> The Joint IOU Protocol complies with this direction. Simply because the IOUs determined – after a review of the existing MPB and a thorough stakeholder process – that the existing MPB is in fact well suited to calculate the above market stranded costs of bundled service storage, does not render that determination invalid. Rather, this Application is the Commission’s opportunity to review the Joint IOU Protocol and determine whether it appropriately accounts for the value of energy storage in the PCIA calculation.

### III.

#### **THE COMMISSION SHOULD REJECT PROPOSALS TO MODIFY ASPECTS OF DEPARTING LOAD COST RESPONSIBILITY THAT ARE OUTSIDE THE SCOPE OF THIS PROCEEDING**

As noted above, D.14-10-045 directed the IOUs to propose a Joint IOU Protocol for determining the above market stranded costs of bundled service storage. Wholesale changes to the rules concerning departing load cost responsibility and the broader PCIA framework are outside the scope of this proceeding and should be rejected by the Commission. For example, the DA/CCA Parties seek to modify rules about when the PCIA applies and what it means for contracts to be “stranded.” They state that “costs cannot or should not be ‘stranded’ upon the

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<sup>5</sup> The Commission stated, “As parties have emphasized, the issues associated with PCIA treatment involve complex policy, cost, equity, implementation, and market impact considerations against the backdrop of new and emerging technologies.” *Id.*

<sup>6</sup> *Id.*, p. 46.

execution of a contract or even upon facility operation. Rather, costs should only become ‘stranded’ over time as market conditions change.”<sup>7</sup>

These arguments are simply incorrect, and confuse the existing PCIA framework as well as the notion of “stranded costs.” When resources have been procured on behalf of bundled service customers, the costs from those contracts are incorporated into the PCIA in the year the resource becomes operational. Contracts that are priced above the current MPB have above-market costs which are shared by all of the customers – both bundled and departing load – for whom those contracts were procured. Contracts that are priced below the MPB in the year the resource becomes operational will not have above market costs and will actually serve to lower the PCIA. Thus, “PCIA treatment” applies to the total portfolio of contracts entered into on behalf of bundled service customers, and those contract costs are stranded when customers for whom those resources were procured leave bundled service. Modifying the existing PCIA framework to only “count” contracts that are “above market” would be a wholesale revision to the existing PCIA framework, is not warranted and is outside the scope of this proceeding.

Similarly, the CCA Parties state that the PCIA should not apply to storage assets when they become operational, but only over time if the procurement costs exceed the projects’ value in the market.<sup>8</sup> The rules concerning the vintaging of contracts and cost responsibility are well established, and outside the scope of this proceeding. Specifically, the contract execution date determines the vintage in which the contract is included. For example, a resource with a contract execution date in calendar year 2015 will be included in the 2015 vintage.<sup>9</sup>

These issues are not appropriate for this proceeding. The appropriate question for this proceeding is whether the Joint IOU Protocol appropriately captures the attributes of energy storage in the market price benchmark. As discussed in more detail below, as well as in SCE’s

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<sup>7</sup> DACC/AReM Opening Brief, p. 5.

<sup>8</sup> CCA Parties Opening Brief, p. 4.

<sup>9</sup> See D.08-09-012, p. 66 and Conclusion of Law 15.

Prepared Testimony and the remaining record in this proceeding, the Joint IOU Protocol is reasonable and should be adopted.

#### IV.

### **THE COMMISSION SHOULD ADOPT THE JOINT IOU PROTOCOL AS PROPOSED**

#### **A. The Full Market Value of Energy Storage is Captured in the Joint IOU Protocol**

##### **1. The PCIA Should Capture Only Market or Marketable Value from an Energy Storage Resource**

DACC/AReM asserts that “by treating storage like gas-fired generation, the Joint IOU Protocol overstates the PCIA.”<sup>10</sup> Similarly, the CCA Parties assert that “without introducing an adder that captures additional value streams generated by storage resources, the current PCIA calculation only reflects the primary products of traditional generation resources, including energy, capacity, and renewable attributes.”<sup>11</sup> The market values of the energy products considered in the PCIA *are* consistent with the market values of generation function energy storage. Therefore, the existing MPB methodology captures the full market value of energy storage and is consistent with Commission decisions which have defined “stranded,” or “above-market” costs as “the difference between the cost of the [utility’s] portfolio and an estimate of its *value in the market*.”<sup>12</sup>

Before SCE signs a contract on behalf of its bundled service customers, an economic assessment is performed to forecast the net market value of that contract. The market benefits that SCE captures in generation-function storage valuations are:

- CAISO energy-related services, as applicable;<sup>13</sup> and

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<sup>10</sup> DACC/AReM Opening Brief, p. 8.

<sup>11</sup> CCA Parties Opening Brief, p. 8.

<sup>12</sup> D.02-11-022, p. 27 (emphasis added).

<sup>13</sup> This market benefit is only considered in those contracts that contain the energy-related output of the storage device as part of the contract (*i.e.* an “energy toll”).

- Resource adequacy (“RA”) capacity value, as applicable.<sup>14</sup>

The costs associated with generation-function storage resources are:

- The fixed capacity payments specified in the contract; and
- The charging, variable operations and maintenance (“O&M”), and other energy-usage related costs, as applicable.

This market valuation is provided to the Commission as part of its application for contract approval, and provides the basis for forecasting how the procurement is likely to impact costs to customers. The Joint IOU Protocol closely mirrors this process. The Joint IOU Protocol forecasts the CAISO energy-discharge quantity and corresponding market value provided by the storage resource, the RA quantity and value, the charging, variable O&M, and other energy-usage related costs associated with those energy-related market operations, and the fixed capacity payments of the contract. Those same major components that SCE considers in its market valuation are contained in the Joint IOU Protocol. No other market-based, or monetary, energy storage benefits exist that flow only to bundled service customers, and no other proposal equitably integrates the above-market costs of storage resources into the existing PCIA framework.

**2. “System Benefits” Already Benefit All Customers and Including Them Again in the PCIA Would Result in Double Counting**

The DA/CCA Parties identify various non-market benefits provided by storage, and assert that these non-market benefits should be captured in the PCIA. For example, the CCA Parties assert that “[t]he joint IOU Protocol...ignores the additional value streams... includ[ing] system level benefits, ancillary services and reliability benefits....”<sup>15</sup> Similarly, Shell states that

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<sup>14</sup> This market benefit only applies to those contracts that contain the resource adequacy rights to the storage device, and where the device fulfills the obligations required to receive a net qualifying capacity under CAISO rules.

<sup>15</sup> CCA Parties Opening Brief, p. 4.

“[e]nergy storage, including ‘generation function’ energy storage, offers time-shifting benefits, system level benefits, ancillary services, and transmission/distribution reliability.”<sup>16</sup>

Apart from ancillary services (“AS”) benefits which are addressed separately below, all of the “system-level benefits” identified by the DA/CCA Parties resulting from the addition of energy storage into the market will be shared by all customers. These benefits do not flow exclusively to the contract-holder, and are therefore not appropriate to include in the PCIA. For example, if a new storage resource causes on-peak energy prices to decrease by \$1/MWh in the summer, then all customers, bundled service and otherwise, will benefit from paying a lower price to serve load. Similarly, if grid reliability is enhanced such that distribution system upgrades are deferred, then once again, all customers will benefit from a lowered distribution cost than what would have occurred without the storage resource. The PCIA’s goal is to equitably share the costs and benefits that remain solely with the remaining bundled service customers so as to ensure they are not harmed by load departures. System-level benefits do not remain solely with remaining bundled service customers, and should therefore be excluded from the PCIA calculation.

### **3. Ancillary Services Benefits Should Not Be Included in the PCIA**

SCE does not support including AS benefits at this time. First, although AS benefits would flow to the contract holder, the AS revenues generated by resources operating in the CAISO market are miniscule relative to the overall net costs of the resources. As the IOUs explained during development of the Joint IOU Protocol,<sup>17</sup> and as PG&E noted in its Opening Brief, AS contribute less than 1 percent of total CAISO market costs.<sup>18</sup> Thus, not including AS in the PCIA would at most miss a small fraction of the potential value provided by energy

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<sup>16</sup> Shell Opening Brief, p. 2.

<sup>17</sup> Exh. SCE-01, Appendix D, Joint IOU Protocol Proposal on PCIA, pp. D-18 (noting that 2014 ancillary service costs represented 0.6 percent of wholesale energy costs, up slightly from 0.5 percent in 2013).

<sup>18</sup> These costs reflect the expected revenues the CAISO pays for AS.



storage resources. This is the reason the existing PCIA framework does not explicitly require the use of a separate forecast for capturing this *de minimus* AS value for other types of generation resources.

Second, including AS benefits in the PCIA could actually reduce the market value attributed to storage. This is because a resource needs to “hold back” its generation in order to be able to provide ancillary services. The existing PCIA framework pushes all energy-related benefits for a resource into energy dispatch. To accomplish this, the IOUs model all resources that are capable of providing AS under the assumption that they will only offer energy dispatch, thereby ensuring that no output is “held back” for AS awards. The Joint IOU Protocol proposes to do the same for energy storage resources. Storage energy output would be calculated based on maximizing the economic operations of the resource exclusively for energy arbitrage services, without holding back any capability for participation in the AS markets. This will ensure that the resource’s maximum energy output will be included in the PCIA energy-benefit calculation without needlessly complicating the PCIA framework to squeeze a portion of the resource’s market energy benefit from energy arbitrage to AS, which has no guarantee to increase the value of an energy storage resource.

**B. TURN’s Proposed Methodology Modifications Are Unnecessary and Would Not Enhance the Joint IOU Protocol**

TURN proposes two options that are intended to more accurately model the benefits associated with energy storage. First, TURN suggests that the IOUs use “Production Cost Modeling” to more accurately estimate above-market costs.<sup>19</sup> This proposal is only different from the Joint IOU Protocol in that it calculates the market energy benefits based on a production cost model’s hourly data instead of the IOU-specific on- and off-peak weighted average energy benchmark. While this proposal may offer a slightly enhanced view of the value of the dispatch

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<sup>19</sup> TURN Opening Brief, p. 3.

of the energy storage resources, it would not necessarily provide a more accurate view of the entire portfolio, as explained below. Moreover, as TURN acknowledges, this approach would require another layer of confidential data that may be unreliable in certain hours.<sup>20</sup>

Second, TURN suggests that the IOUs “use some measure of on-peak and off-peak prices to mimic storage asset dispatch and value in a simple, separate model.”<sup>21</sup> However, as TURN states, this option “also poses some challenges” as it pertains to the availability of market data to support the proposal. Again, even if all of the challenges that TURN identified were overcome, the proposal would at best, like their Option 1, only serve to refine the calculation of market value solely for energy storage, while leaving the PCIA’s portfolio value unchanged. This is because, as TURN states, both proposals would require “that the storage charging energy and discharged energy would be properly netted against an IOU’s total load.”<sup>22</sup> Energy storage load and discharge would need to be netted separately because instead of utilizing the IOU’s specific load-weighted “brown” energy benchmark for valuing the energy output of all resources,<sup>23</sup> energy storage would be “pulled aside” and weighted differently. Because of this, the value of the remaining resources would need to re-align with a portfolio that is valued entirely at an IOU’s load weighted energy value. Thus, the IOU’s load profile, and resulting non-storage “brown” benchmark weight must be offset by the energy storage’s contribution to load. Essentially, this would cause energy values for storage resources to increase by some amount, but the re-weighted energy benchmark would cause the remainder of the portfolio to decrease in value by a similar amount. The net result is more complexity and an overhaul of the entire PCIA brown energy calculation framework, for little to no change in the portfolio’s PCIA calculation.

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<sup>20</sup> See TURN Opening Brief, p. 3. (“First, this method is not transparent. Further, production cost modeling results may be less reliable when attempting to estimate market prices in specific hours, particularly when those hours are at the low and high edges of the price distribution.”).

<sup>21</sup> TURN Opening Brief, p. 4.

<sup>22</sup> *Id.*

<sup>23</sup> Because an IOU constructs an energy portfolio to serve its load, using a load-weighted energy price for the portfolio’s value of resources is reasonable.

## V.

### **THE COMMISSION SHOULD NOT ADOPT THE DA/CCA PROPOSAL**

The DA/CCA Parties argue that the Commission should utilize an energy storage-specific benchmark equal to the cost of the energy storage resources, and thus there are no stranded costs. This circular logic should be rejected. As noted above, the Commission has defined “stranded,” or “above-market” costs as “the difference between the cost of the [utility’s] portfolio and an estimate of its *value in the market*.”<sup>24</sup> Thus, a resource’s actual value in the market is the determining factor, and simply *assuming* that the value equals the costs is unsustainable. Further, contrary to the DA/CCA arguments, the proposed storage adder is not analogous to the “green adder” for renewable resources as discussed below, and the value of a contract is not equal to its costs. Lastly, the DA/CCA Proposal is not fully developed or robust, and is incapable of being implemented at this time. The Commission should thus reject the DA/CCA Proposal, and adopt the Joint IOU Protocol as presented in SCE’s and PG&E’s applications.

#### **A. The Proposed Storage Adder Is Not Analogous to the Existing Renewable Adder**

The DA/CCA Parties claim that energy storage procurement is analogous to renewables procurement, and that the Commission should therefore adopt a storage adder wherein the storage benchmark is equal to the cost of energy storage resources.<sup>25</sup> This proposal ignores the justification proffered by the DA/CCA Parties to establish the green adder, and the differences between the RPS program and the Energy Storage Procurement Framework. Specifically, the DA/CCA Parties argued that because a utility’s RPS obligation is a set percentage of energy served, departures of load from bundled service reduce a utility’s RPS obligation. Therefore, load departures reduce required RPS procurement and renewable energy costs to serve bundled service load because the renewable energy and RECs that had been procured to serve departing

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<sup>24</sup> D.02-11-022, p. 27 (emphasis added).

<sup>25</sup> DACC/AReM Opening Brief, p. 9.

load customers can instead be used to reduce the remaining obligation of bundled service customers.<sup>26</sup>

In contrast, utility energy storage targets are fixed, and load departures will not reduce procurement requirements or energy storage costs. Rather, they will spread set costs across fewer customers, increasing the cost per customer to achieve IOU energy storage targets.<sup>27</sup> By attributing additional, non-market value to energy storage resources, bundled service customers would be paying additional charges without receiving any additional benefit, which violates the principle of bundled customer indifference. Thus, the justification for a green adder proffered by the DA/CCA Parties does not apply here.

Moreover, the DA/CCA Parties propose that the storage adder be based entirely on utility energy storage costs, which is also inconsistent with the renewable adder. In order to be reflective of the cost premium of all renewables procured to meet California's RPS goals, the renewable adder is based 68% on IOU renewable costs and 32% on a National Renewable Energy Laboratory-determined REC value to represent procurement by non-utility load serving entities, such as DA providers and CCAs. However, the DA/CCA Parties do not propose to use any similar market data, and in fact, at least one DA/CCA Party has already expressed its unwillingness to share its storage contract costs with the Commission.<sup>28</sup> Currently, there is no mechanism that would allow a storage adder to be implemented in a manner that is consistent with the renewable adder.

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<sup>26</sup> See R.07-07-025, Exh. 100, *Direct Testimony of Mark Fulmer et al. on Behalf of Joint Parties* (January 31, 2011), p. 9.

<sup>27</sup> Indeed, when translated to a percentage of load, SCE's energy storage target is approximately 2.5% of its load, whereas the DA/CCA target is only 1% of load. With load departures, SCE's target on a percentage basis would increase, while the DA/CCA target would remain the same.

<sup>28</sup> At the workshop, Shell Energy indicated that it would not be willing to share the costs of its contracts with the Energy Division for purposes of calculating the "energy storage benchmark." May 9 PCIA Workshop WebEx Recording at 2:54:33.

**B. The Value of an Energy Storage Contract Is Not Equal to Its Cost**

Shell contends that the value of an IOU's energy storage contract must be equal to its cost because the Commission approves contracts that are "cost effective."<sup>29</sup> This conclusion is unsupported by the record. First, as SCE noted in its Reply to protests on SCE's Application, the Commission has not defined "cost effective" for purposes of meeting the requirements of Assembly Bill 2514.<sup>30</sup> In SCE's view, and in light of the mandate to procure energy storage, "cost effective" refers to the reasonableness of the value proposition to SCE's customers relative to the procurement objective. Thus, simply because a contract is "cost effective," does not mean that contract has no above market or stranded costs.

SCE therefore agrees with TURN that "The CCA/DA Proposal ignores the potential for storage assets, in actual operation, to generate cash flows that do not equal the costs of such assets,"<sup>31</sup> and that "the CCA/DA Proposal would effectively allocate all such negative cash flows to bundled customers, violating the 'bundled customer indifference' principle that is the basis for computing the PCIA."<sup>32</sup> The blind "value equals cost" assumption fails to maintain bundled customer indifference, and can result in tremendous unfair cost shifting between bundled and unbundled customers.

**C. The DA/CCA Proposal Is Not Suitable for Implementation**

As SCE articulated in its Opening Brief, the DA/CCA Proposal is lacking in detail and specifics.<sup>33</sup> There is no clear DA/CCA proposal or record evidence for which contracts would be used in the unique storage benchmark, how a single benchmark could suffice, or whether the

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<sup>29</sup> Shell Opening Brief, p. 2-3.

<sup>30</sup> D.13-10-040 provides that "any actual finding of cost-effectiveness should only be done in a utility application for approval of storage contracts or rate-based additions, where there is a specific project and actual project inputs." D.13-10-040, p. 63. The Commission further allowed the IOUs to propose their own methodology to evaluate the cost and benefits of bids. *Id.*

<sup>31</sup> TURN Opening Brief, p. 2.

<sup>32</sup> *Id.*

<sup>33</sup> SCE Opening Brief, pp. 10-11.

benchmark would account for the average costs of non-IOU energy storage contracts.<sup>34</sup> DACC/AReM, for the first time in this proceeding, outline in their Opening Brief how the proposed “storage adder” would handle different types of energy storage contracts.<sup>35</sup> DACC/AReM explain that they have now “considered the issue” and determined that one benchmark is appropriate for different types of contracts. DACC/AReM state that because their proposed storage benchmark is calculated on a cost per unit capacity basis, it does not matter whether a contract is for capacity only, or both energy and capacity.<sup>36</sup> To DACC/AReM, “storage is storage,” but this ignores market realities. And by ignoring the actual costs and market value of the contracts, this proposal fails to achieve bundled customer indifference.

SCE goes through a great deal of effort to ensure that its contracts contain performance requirements for the products it procures, like energy and RA. When performance requirements change from providing energy, to energy and AS, to RA-only, for example, the price required by the counterparty will change commensurate with the costs of providing those products. Therefore, saying the value of an RA-only storage contract is equal to the value of a storage contract providing RA and energy, completely ignores the fundamental concept of market services and the different market value streams that energy storage contracts can provide, and shows no attempt to maintain, or even address, bundled customer indifference.

For example, the current RA benchmark for the PCIA is approximately \$58/kW-year. This \$58 is intended to reflect the market cost for RA capacity. If one IOU contracts for an RA-only energy storage resource at a cost of \$60/kW-year, then the DA/CCA Parties propose to ignore this market reality, and assign a “storage value” to the contract of \$60/kW-year, resulting

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<sup>34</sup> At the workshop, Shell Energy indicated that it would not be willing to share the costs of its contracts with the Energy Division for purposes of calculating the “energy storage benchmark.” May 9 PCIA Workshop WebEx Recording at 2:54:33.

<sup>35</sup> See DACC/AReM Opening Brief p. 13 (including a section titled “Responses to Questions in May 9 Workshop”). In an effort to efficiently resolve the issues in this proceeding, SCE did not file a motion to strike this information, which is not part of the record. However, it is procedurally inappropriate to include new evidence for the first time in a brief, after the record has been submitted.

<sup>36</sup> DACC/AReM Opening Brief, p. 13.

in zero above market costs. If another IOU then signs an energy storage full toll (energy and RA) contract for \$80/kW-year, under the DA/CCA Proposal, the first IOU's customers still pay \$60/kW-year for the storage contract but now credit back \$70/kW-year (average of \$60 and \$80, assuming equal quantity amounts) through the PCIA, resulting in a \$12/kW-year overstatement of value (\$70-\$58). This proposal clearly does not maintain bundled customer indifference, and can result in tremendous, unfair cost shifting between bundled and unbundled customers.

## **VI.**

### **SCE SUPPORTS RE-EVALUATING THE ENERGY STORAGE PCIA WHEN SUFFICIENT MARKET DATA IS AVAILABLE**

The CCA Parties suggest that “[t]he Commission should consider re-evaluating the MPB calculation in 2019 to determine whether adjustments are needed to reflect storage assets’ market value.”<sup>37</sup> As SCE indicated in both its Prepared Testimony and its Opening Brief, SCE supports the re-evaluation of PCIA to consider any additional revenue streams that may be identified for energy storage resources. However, as reflected in PG&E’s and SCE’s applications, the majority of the resources procured in SCE’s and PG&E’s 2014 solicitations will not be operational until after 2019.<sup>38</sup> For this reason, SCE proposes that any re-evaluation of the PCIA should be delayed until 2020 or 2021 so that any potential changes can be informed by actual energy storage operations.

## **VII.**

### **CONCLUSION**

Through its Application, testimony, and briefing, SCE has demonstrated that the 2014 Energy Storage RFO and the contracts selected through the RFO are reasonable. Further, SCE

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<sup>37</sup> CCA Parties Opening Brief, p. iii.

<sup>38</sup> Exh. SCE-01, *Opening Testimony of J. Bryson*, Chapter I, p. 3; A.15-12-004, Application of PG&E, p. 5.

has demonstrated that the Joint IOU Protocol is reasonable and should be adopted. It is consistent with concepts and mechanisms of the existing PCIA for non-energy storage resources and is the best available methodology to calculate the indifference adjustment needed to maintain customer indifference. The Commission should approve SCE's Application in its entirety and grant the findings requested by SCE.

Respectfully submitted,

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